



WEST NILE VIRUS

GENERAL INFORMATION

Q: What is West Nile virus?

A: West Nile is a mosquito-borne virus that can cause encephalitis (inflammation of the brain) or meningitis (inflammation of the lining of the brain and spinal cord).

Q: How is West Nile virus spread?

A: West Nile virus is spread to humans by the bite of an infected mosquito. A mosquito becomes infected by biting a bird that carries the virus. You or your child cannot get West Nile virus from a person who has the disease. West Nile virus is *not* spread by person-to-person contact such as touching, kissing or caring for someone who is infected.

Q: What is the North Dakota Department of Health doing in response to West Nile virus?

A: The Department of Health has been conducting surveillance activities for West Nile virus since 1999. Surveillance focuses on four main groups: mosquitoes, birds, horses and humans. In areas of the state where the virus is identified, the department will increase surveillance activities, including trapping and testing of mosquitoes. In addition, educational efforts focusing on the prevention of mosquito bites and the reporting of dead birds will be enhanced. Finally, the department will continue to provide information to health care providers about the illness in humans.

Q: Are older adults more at risk for West Nile viral disease?

A: Yes. While the chance of anyone becoming infected with West Nile virus is very low, most cases in the United States have occurred in people older than 50. People in this age group, especially the elderly, also are more likely to develop severe diseases, such as encephalitis or meningitis, if they become infected.

Q: Where did West Nile virus come from?

A: Outbreaks of West Nile viral disease have occurred in Africa, Egypt, Israel, Asia, Romania, Russia and France. Before 1999, however, West Nile virus had never been found in the Americas. One possible explanation for its appearance here would be that an infected bird or mosquito was imported into the United States.

Q: Can you get West Nile virus directly from birds?

A: There is currently no evidence that West Nile virus can be spread directly from birds to people. However, dead birds can carry a variety of diseases and, therefore, should never be handled with bare hands. Use gloves to carefully place dead birds in double-plastic bags and then place in the outdoor trash.

Q: Besides mosquitoes, can you get West Nile virus directly from other insects or ticks?

A: Infected mosquitoes are the primary source of West Nile virus. There is no evidence to suggest that ticks or other insects transmit West Nile virus.

Q: What are the symptoms of West Nile viral infection?

A: Most people who are infected with West Nile virus either have no symptoms or experience mild illness such as a fever, headache and body aches before fully recovering. Some people also may develop a mild rash or swollen lymph glands. In some individuals, particularly the elderly, West Nile virus can cause serious disease that affects brain tissue. At its most serious, it can cause permanent neurological damage and can be fatal.

Symptoms of encephalitis (inflammation of the brain) include the rapid onset of severe headache, high fever, stiff neck, confusion, loss of consciousness (coma) or muscle weakness, and may be fatal.

Q: Is a woman's pregnancy at risk if she gets West Nile virus?

A: There is no documented evidence that a pregnant woman or her fetus is at increased risk due to infection with West Nile virus.

Q: How is West Nile encephalitis treated?

A: There is no specific therapy. In more severe cases, intensive supportive therapy is indicated; i.e., hospitalization, intravenous (IV) fluids and nutrition, airway management, ventilatory support (ventilator) if needed, prevention of secondary infections (pneumonia, urinary tract, etc.), and good nursing care.

Q: Is there a vaccine against West Nile virus?

A: A vaccine for humans against West Nile virus does not exist. Horse owners should contact their veterinarian regarding a vaccine that is available for horses.

Q: How long does it take to get sick if bitten by an infected mosquito?

A: Being bitten by an infected mosquito will not necessarily make you sick. Most people who are infected with West Nile virus have no symptoms or experience only mild illness. If illness were to occur, it would occur within three to 15 days of being bitten by an infected mosquito.

Q: What should I do if I think I have West Nile encephalitis?

A: If you develop signs of encephalitis (such as fever, muscle weakness and/or confusion) you should seek medical care immediately.

Q: What can I do to reduce my risk of becoming infected with West Nile virus?

A: From May to September, when mosquitoes are most active, take the following precautions:

- *If outside from dusk to dawn when mosquitoes are most active, or during the day in an area where there are weeds, tall grass or bushes, people should wear protective clothing, such as long pants, loose-fitting, long-sleeved shirts, and socks, and consider the use of an insect repellent containing DEET.*

Products with a low concentration of DEET may be appropriate for situations where exposure to mosquitoes is minimal. Higher concentrations of DEET may be useful in highly infested areas or with species that are more difficult to repel. However, the American Academy of Pediatrics recommends that repellents used on children should not contain more than 10 percent DEET. Concentrations of up to 30 percent DEET have been shown to be acceptable for adults. *Where appropriate, consider using non-chemical ways to deter biting insects such as protective clothing (as outlined above), window and door screens, and wearable netting when camping.*

- ***Use DEET according to manufacturer's directions on the label.***
- *Store DEET out of reach of children.*
- *Use caution when using repellents containing DEET on children.*
- *Do not apply DEET directly onto children. Apply to your own hands and then put it on the child.*
- *Do not apply on hands or near eyes and mouth of young children.*
- *Do not allow children to apply repellents themselves.*
- *As with chemical exposure in general, pregnant women should take care to avoid exposures to repellents when practical.*
- *Wash all treated skin and clothing with soap and water after returning indoors.*
- *Never use repellents over cuts, wounds or irritated skin.*

- *Depending on the concentration of DEET in a product, it can be effective for about three to six hours. Avoid prolonged or excessive use of DEET. Use sparingly to cover exposed skin and clothing. Do not apply to skin covered by clothing.*
- *Note that vitamin B, ultrasonic devices, and incense have not been shown to be effective in preventing mosquito bites.*

Q: What can I do around my home to help reduce exposure to mosquitoes?

A: Mosquitoes lay their eggs in standing or slow-moving (such as streams or creeks) water. Weeds, tall grass and bushes provide an outdoor home for mosquitoes. They can enter homes through unscreened windows or doors, or broken screens.

- *Make sure that doors and windows have tight-fitting screens. Repair or replace all screens that have tears or holes.*
- *Remove all discarded tires from your property.*
- *Dispose of tin cans, plastic containers, ceramic pots or similar water-holding containers.*
- *Make sure roof gutters drain properly. Clean clogged gutters in the spring and fall.*
- *Clean and chlorinate swimming pools, outdoor saunas and hot tubs. If not in use, keep empty and covered.*
- *Drain water from pool covers.*
- *Change the water in birdbaths every three to four days.*
- *Turn over plastic wading pools and wheelbarrows when not in use.*
- *Eliminate any standing water that collects on your property.*
- *Remind or help neighbors to eliminate breeding sites on their properties.*

Q: If I live in an area where birds or mosquitoes with West Nile virus have been reported and I am bitten by a mosquito, am I likely to get sick?

A: Evidence indicates that the chance of human infection and illness resulting from West Nile virus is very low. People older than 50, especially the elderly, are those most likely to get seriously ill if they become infected, and should, therefore, take extra care to prevent exposure to mosquito bites.

Q: I've gotten a mosquito bite. Should I be tested for West Nile virus?

A: No. Illnesses related to mosquito bites are still uncommon. However, you should see a doctor immediately if you develop symptoms such as high fever, confusion, muscle weakness, severe headaches, stiff neck, or if your eyes become sensitive to light. Patients with mild symptoms should recover completely and do not require any specific medication or laboratory testing.

Q: Should I report dead birds to the health department?

A: People who notice sick or dead birds are asked to contact their local public health unit, veterinarian or extension agent; the North Dakota Game and Fish Department; the U.S. Wildlife Service; USDA Wildlife Services; or the North Dakota Department of Health.

Q: What does having a horse test positive for West Nile virus mean?

A: If a horse that has not recently been taken out of the vicinity tests positive for West Nile virus, it means the virus is present in the area's mosquitoes and birds. Not all states that report cases in horses have human cases.

Q: How does a case of West Nile virus in a horse relate to human cases?

A: About one-half of states that report cases in horses also report human cases. Horses are considered a "dead end" in the transmission of West Nile virus. In other words, they cannot transmit the disease to humans or other animals, and mosquitoes are unlikely to become infected from a horse.

For more information, call the North Dakota Department of Health at 701.328.2378.